

LISTING OF CLAIMS:

1-26. (Cancelled)

27. **(Previously Presented)** A computer implemented method for enabling a plurality of users at a plurality of respective client systems to remotely perform ~~an~~ one or more respective exercises using the plurality of respective client systems, the method comprising:

storing in a course database course information including a list of exercises, and for a given exercise one or more virtual machines associated with the exercise;

receiving a request to connect to a remote system from at least one user;

accessing, by the remote system, the course database to determine one or more courses associated with the user;

transmitting, by the remote system, a list of the courses associated with the user to the respective client system associated with the user;

receiving, by the remote system, a selection of at least one of the courses in the course list from the user;

accessing, by the remote system, the course database to determine one or more exercises associated with the selected course;

transmitting, by the remote system, a list of the exercises associated with the selected course to the respective client system associated with the user;

receiving, by the remote system, a selection of at least one of the exercises in the transmitted exercise list from the user;

accessing, by the remote system, the course database to determine at least one virtual machine associated with the selected exercise;

launching, by the remote system, the virtual machine associated with the selected exercise, wherein the launched virtual machine generates a user interface for performing the selected exercise; and

transmitting, by the remote system, a view of the user interface to the respective client system associated with the user, wherein the user performs the selected exercise by remotely interacting with the virtual machine via the view of the user interface.

28. **(Previously Presented)** The method of claim 27, wherein the client system comprises a web browser and a viewer application for displaying the view of the user interface.

29. **(Previously Presented)** The method of claim 27, further comprising:

transmitting, by the remote system, a page to the client system, the page including at least one selectable user interface element associated with the launched virtual machine; and receiving a selection of the at least one user interface element from the user.

30. **(Previously Presented)** The method of claim 29, further comprising generating the view of the user interface in response to receiving the selection of the user interface element.

31. **(Previously Presented)** The method of claim 27, further comprising launching a remote display server to handle a session with a viewer application at the client system, the viewer application displaying the view of the user interface to the user, the remote display server refreshing the view in response to the user interacting with the view of the user interface during the session.

32. **(Previously Presented)** A computer implemented method for enabling a plurality of students at a plurality of respective client systems to remotely perform one or more respective exercises using the plurality of respective client systems, the method comprising:

storing in a course database associated with a remote system course information including a list of exercises, and for a given exercise one or more virtual machines associated with the exercise;

accessing, by the remote system, the course database to determine one or more courses associated with at least one student;

displaying for the student, at the respective client system associated with the student, a list of the courses associated with the student;

upon receiving a selection of at least one of the displayed courses from the student, displaying for the student, at the respective client system associated with the student, a list of exercises associated with the selected course; and

upon receiving a selection of at least one of the displayed exercises from the student,

launching, by the remote system, at least one virtual machine associated with the selected exercise, wherein the launched virtual machine generates a user interface for performing the selected exercise; and

displaying for the student, at the respective client system associated with the student, a view of the user interface, wherein the student performs the selected exercise by remotely interacting with the virtual machine via the view of the user interface.

33. **(Previously Presented)** The method of claim 32, further comprising displaying for the student a page including one or more selectable user interface elements associated with the launched virtual machine.

34. **(Previously Presented)** The method of claim 33, further comprising upon receiving a selection of at least one of the displayed user interface elements from the student, generating the view of the user interface.

35. **(Previously Presented)** The method of claim 32, further comprising launching a remote display server to handle a session with a viewer application at the client system, the viewer application displaying for the student the view of the user interface, the remote display server refreshing the view in response to the student interacting with the view of the user interface during the session.

36. **(Previously Presented)** A system for enabling a plurality of students at a plurality of respective client systems to remotely perform one or more respective exercises using the plurality of respective client systems, each of the plurality of respective client systems having a respective web browser and a respective viewer application, the system comprising:

 a server remote from the plurality of respective client systems;
 a plurality of computer systems coupled to the remote server, each computer system associated with at least one course and comprising:

 a virtual machine platform for running virtual machines,
 a virtual machine launcher for launching the virtual machines on the virtual machine platform, and
 a remote display server for handling sessions between the virtual machines and the plurality of respective client systems; and

 a course database that stores course information including a list of exercises, and for a given exercise one or more virtual machines associated with the exercise, the course database coupled to the remote server, wherein the system is operable to:

 access the course database to determine one or more courses associated with at least one student;

 transmit a list of the courses associated with the student to the respective client system associated with the student;

 receive a selection of at least one of the courses in the course list from the respective client system associated with the student;

 transmit a list of exercises associated with the selected course to the respective client system associated with the student;

 receive a selection of at least one of the exercises in the transmitted exercise list from the respective client system associated with the student;

 select one of the plurality of computer systems based on the selected course;

 invoke the virtual machine launcher at the selected computer system to launch at least one virtual machine associated with the selected exercise, wherein the launched virtual machine runs on the virtual machine platform at the selected

computer system and generates a user interface for performing the selected exercise; and

launch the remote display server at the selected computer system to handle a session with the respective client system associated with the student, wherein the remote display server is operable to transmit views of the user interface to the respective viewer application at the respective client system during the session, the respective viewer application displaying the view of the user interface to the student, wherein the student performs the selected exercise by remotely interacting with the virtual machine during the session via the views of the user interface.

37. **(Previously Presented)** The system of claim 36, wherein the virtual machine launcher runs on the selected computer system onto which the selected course is installed.

38. **(Previously Presented)** The system of claim 36, wherein the system is further operable to access the course database to determine the virtual machine associated with the selected exercise.

39. **(Previously Presented)** The system of claim 36, wherein the remote display server at the selected computer system is further operable to transmit a page to the respective client system, the page including at least one selectable user interface element associated with the launched virtual machine.

40. **(Previously Presented)** The system of claim 39, wherein the remote display server at the selected computer system is further operable to:

receive a selection of the at least one user interface element from the student; generate a view of the user interface in response to receiving the selection of the user interface element; and

refresh the view in response to the student interacting with the view of the user interface during the session.

41. **(Previously Presented)** The system of claim 36, wherein the virtual machine launcher is operable to register configuration information and the course information with the course database, the configuration information including a unique identifier for the virtual machine launcher and a port number for the remote display server to accept session connections, the course information further including a list of courses associated with the virtual machine launcher.

42. **(Previously Presented)** A computer readable medium for enabling a plurality of users at a plurality of respective client systems to remotely perform one or more respective exercises using the plurality of respective client systems, the computer readable medium comprising computer-executable instructions for:

storing in a course database course information including a list of exercises, and for a given exercise one or more virtual machines associated with the exercise;

receiving a request to connect to a remote system from at least one user;

accessing, by the remote system, the course database to determine one or more courses associated with the user;

transmitting, by the remote system, a list of the courses associated with the user to the respective client system associated with the user;

receiving, by the remote system, a selection of at least one of the courses in the course list from the user;

accessing, by the remote system, the course database to determine one or more exercises associated with the selected course;

transmitting, by the remote system, a list of the exercises associated with the selected course to the respective client system associated with the user;

receiving, by the remote system, a selection of at least one of the exercises in the transmitted exercise list from the user;

accessing, by the remote system, the course database to determine at least one virtual machine associated with the selected exercise;

launching, by the remote system, the virtual machine associated with the selected exercise, wherein the launched virtual machine generates a user interface for performing the selected exercise; and

transmitting, by the remote system, a view of the user interface to the respective client system associated with the user, wherein the user performs the selected exercise by remotely interacting with the virtual machine via the view of the user interface.

43. **(Previously Presented)** The computer readable medium of claim 42, further comprising computer-executable instructions for:

transmitting, by the remote system, a page to the client system, the page including at least one selectable user interface element associated with the launched virtual machine; and receiving a selection of the at least one user interface element from the user.

44. **(Previously Presented)** The computer readable medium of claim 43, further comprising computer-executable instructions for generating the view of the user interface in response to receiving the selection of the user interface element.

45. **(Previously Presented)** The method of claim 42, further comprising computer-executable instructions for launching a remote display server to handle a session with a viewer application at the client system, the viewer application displaying the view of the user interface to the user, the remote display server refreshing the view in response to the user interacting with the view of the user interface during the session.

46. **(Previously Presented)** A computer implemented method for enabling a plurality of users at a plurality of respective client systems to remotely perform one or more respective exercises using the plurality of respective client systems, the method comprising:

storing in a course database course information including a list of exercises, and for a given exercise one or more virtual machines associated with the exercise;

receiving a request to connect to a remote system from at least one user;

accessing, by the remote system, the course database to determine one or more courses associated with the user;

transmitting, by the remote system, a list of the courses associated with the user to the respective client system associated with the user;

receiving, by the remote system, a selection of at least one of the courses in the course list from the user;

accessing, by the remote system, the course database to determine one or more exercises associated with the selected course;

transmitting, by the remote system, a list of the exercises associated with the selected course to the respective client system associated with the user;

receiving, by the remote system, a selection of at least one of the exercises in the transmitted exercise list from the user;

selecting, by the remote system, at least one available virtual machine launcher associated with the selected course, wherein the selected virtual machine launcher is running on a computer onto which the selected course is installed, the computer being associated with the remote system;

transmitting, by the remote system, a message including at least one identifier that identifies the selected exercise to the selected virtual machine launcher, wherein the selected virtual machine launcher is operable to:

access the course database to determine at least one virtual machine associated with the selected exercise; and

launch the virtual machine associated with the selected exercise, wherein the launched virtual machine generates a user interface for performing the selected exercise; and

transmitting, by the remote system, a view of the user interface to the respective client system associated with the user, wherein the user performs the selected exercise by remotely interacting with the virtual machine via the view of the user interface.